

Serial No. 10/747,657

Docket No. 1315-050

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

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Listing of Claims:

1. (*Currently amended*) A method of producing TiC-transition metal-based complex powder, comprising the steps of:

(a) preparing a raw material mixture by dissolving or dispersing a [Ti-containing water-soluble salt,]  $\text{TiO(OH)}_2$  slurry [or ultrafine titanium oxide powder], and [a transition metal-containing water-soluble metal salt] cobalt nitrate in water, followed by spray-drying to obtain precursor powder;

(b) calcining the precursor powder to form ultrafine [Ti-transition metal] Ti-Co complex oxide powder;

(c) mixing the ultra fine [Ti-transition metal] Ti-Co complex oxide powder with nano-sized carbon particles, followed by drying to obtain complex oxide powder; and

(d) subjecting the dried complex oxide powder to reduction/carburization in a non-oxidizing atmosphere wherein the reduction and carburization is performed by reduction at a temperature between 600°C to 1100°C and then reduction and carburization at a temperature between 1200°C to 1350°C.

2. (*Cancelled*)

3. (*Currently amended*) The method according to claim 1, wherein the content of the [transition metal] cobalt in the complex powder is in the range of 1 to 30 wt%.

4. (*Previously presented*) The method according to claim 1, wherein the calcination is performed at a temperature between 350 to 1000°C.

5. (*Cancelled*)

6. (*Cancelled*)

7. (*Cancelled*).

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8. *(Cancelled)*
9. *(Cancelled).*
10. *(Cancelled).*
11. *(Cancelled).*
12. *(Currently amended)* The method according to claim [11] 1, wherein the TiC-Co complex powder has a particle size of from 50 nm to 300 nm.
13. *(Cancelled).*
14. *(Cancelled).*
15. *(Currently amended)* The method according to claim [11] 1, wherein said TiC-Co complex powder is TiC-15 wt% Co complex powder.
16. *(Cancelled).*
17. *(Cancelled)*
18. *(Previously presented)* The TiC-transition metal-based complex powder made by the process of Claim 1.
19. *(Previously presented)* The powder of claim 18 wherein the particle size of the powder is in the range of 50 nm to 300 nm.
20. *(New)* A method of producing TiC-transition metal-based complex powder, comprising the steps of:
  - (a) preparing a raw material mixture by dissolving or dispersing a nano-sized TiO<sub>2</sub> and cobalt nitrate in water, followed by spray-drying to obtain precursor powder;
  - (b) calcining the precursor powder to form ultrafine Ti-Co complex oxide powder;

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- (c) mixing the ultra fine Ti-Co complex oxide powder with nano-sized carbon particles, followed by drying to obtain complex oxide powder; and
- (d) subjecting the dried complex oxide powder to reduction/carburization in a non-oxidizing atmosphere wherein the reduction and carburization is performed by reduction at a temperature between 600°C to 1100°C and then reduction and carburization at a temperature between 1200°C to 1350°C.

21. (New) The method according to claim 20, wherein the content of the cobalt in the complex powder is in the range of 1 to 30 wt%.

22. (New) The method according to claim 20, wherein the calcination is performed at a temperature between 350 to 1000°C.

23. (New) The method according to claim 20, wherein the Ti-Co complex is TiC-15 wt% Co complex powder.